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The role of PTSD and length of shelter stay in battered women's severity of re-abuse after leaving shelter

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Abstract

Intimate Partner Violence (IPV) is associated with significant morbidity, including high rates of re-abuse even after women have taken steps to achieve safety. This study evaluated the roles of posttraumatic stress disorder (PTSD) symptom severity and length of shelter stay in the severity of re-abuse in 103 IPV victims over a six month period after leaving a battered women's shelter. Results suggest that the length of shelter stay is inversely related to re-abuse severity after leaving shelter. Additionally, more severe PTSD symptoms upon shelter exit were associated with greater re-abuse severity after leaving shelter. Furthermore, additional study findings support prior research suggesting that the emotional numbing symptoms of PTSD are a significant risk factor for re-abuse among IPV victims after leaving shelter.

Keywords

PTSD; intimate partner violence; battered women's shelters; revictimization

Intimate partner violence (IPV) is a public health crisis that takes an enormous toll on the physical and psychological health of women worldwide. Nearly 25% of American women are directly affected by some form of violence perpetrated by an intimate partner (Breiding, Black, & Ryan, 2008; Tjaden & Thoennes, 2000). Of those, more than 40% of abused women reported being injured during their most recent assault (Tjaden & Thoennes, 2000). Further, IPV typically represents a pattern of behaviors rather than a one-time event, often resulting in re-abuse over time even after an IPV victim has made efforts to establish safety and independence (Bybee & Sullivan, 2005). Although definitive rates of re-abuse are difficult to determine, previous research suggests that re-abuse, either by a former or current intimate partner, is common, with prevalence rates ranging between 36% to nearly 50% over a two to three year time period (Campbell & Soeken, 1999; Fleury, Sullivan, & Bybee, 2000; Sullivan & Bybee, 1999).

In addition to the physical consequences and chronic nature of IPV, many victims also experience trauma related sequelae including posttraumatic stress, depression, suicide attempts, and other psychiatric concerns (Bergman & Brismar, 1991; Sutherland, Bybee, & Sullivan, 2002). Posttraumatic stress disorder (PTSD) represents one of the most common mental health sequelae of IPV, with studies estimating between 31% and 84% of women who have experienced IPV meet diagnostic criteria (Golding, 1999; Jones, Hughes, & Unterstaller, 2001). In addition to the emotional burden of PTSD, PTSD symptoms have been associated with other negative outcomes including a loss of social and personal resources which can lead to increased risk of experiencing re-abuse (Hobfoll, 1991; Perez & Johnson, 2008). In reaction to IPV and the associated loss of personal and social resources, women often work to leave an abusive situation, sometimes by seeking assistance from battered women's shelters (Macy, Giattina, Sangster, Crosby, & Montijo, 2009; Sullivan & Gillum, 2001). The goal of many battered women's shelters is to provide women a haven free from abuse, often including a supportive and resource rich environment in which women can work toward establishing independence and long-term safety for themselves and their children (Macy et al., 2009; Sullivan & Gillum, 2001).

When women leave an abusive relationship in an attempt to establish personal safety, women often leave behind many tangible resources including housing, clothing, and other material necessities in addition to the loss of personal and social resources already experienced as a result of the IPV. Shelters attempt to counteract this loss of resources through the provision of tangible and supportive resources. Consistently, prior research suggests that shelters may be successful in protecting women from future abuse. For example, in an attempt to empirically identify factors related to the timing of women's departure from violent relationships, Panchanadeswaran and McCloskey (2007) found that women who experienced moderate physical violence and had contact with a domestic violence shelter were less likely to be in a relationship with their abusive partner when interviewed approximately five years later. However, this study did not specifically look at their severity of re-abuse with relation to contact with the shelter.

The relationship between loss of resources, IPV, and PTSD describes the plight often faced by battered women as they seek to establish long-term safety for themselves and their children, highlighting the co-occurring problems of PTSD and the need to regain lost resources. Therefore, the purpose of the current study is to simultaneously investigate the role of both PTSD and women's use of resources provided by the shelter, as indicated by length of shelter stay. Previous research has established a relationship between PTSD and re-abuse in community samples (Krause, Kaltman, Goodman, & Dutton, 2006; Perez & Johnson, 2008). The current study seeks to extend these findings by investigating the relationship between IPV-related PTSD and re-abuse severity in a shelter sample as well as consider the impact of shelter services specifically upon future safety in this vulnerable population.

Shelter Services

Research suggests that women who have experienced IPV are quite active in their efforts to establish safety (Gondolf & Fisher, 1988; Goodman, Dutton, Vankos, & Weinfurt, 2005). Entities which may support battered women's efforts include law enforcement, legal interventions, social service agencies (e.g., child protective and welfare agencies), and victim services (e.g., battered women's shelters; Moe, 2007). Battered women's shelters provide physical protection and a safe haven, free from violence, for abused women and their children (Haj-Yahia & Cohen, 2009). The National Coalition Against Domestic Violence (NCADV) estimates that there are approximately 2,000 community based shelter programs throughout the United States which provide emergency shelter to approximately

300,000 women and children each year (NCADV, 2006). Specific services provided by shelters vary between facilities but often include advocacy, case management services, access to resources, physical shelter, and a socially supportive milieu, usually on a time limited, emergency basis (Haj-Yahia & Cohen, 2009; Macy et al., 2009; Sullivan & Gillum, 2001).

One commonly stated goal of battered women's shelters is to help residents gain needed resources in order to assist women and their children in their ability to establish violence-free lives. Prior research has demonstrated the importance of resources for those who have experienced trauma. Conservation of resource (COR) theory (Hobfoll, 1991) posits that there is a downward, bidirectional spiral between PTSD and loss of needed personal resources. This loss of resources may contribute to difficulty in establishing long-term safety for victims of IPV. Shelters play a vital role in their efforts to combat this loss of needed resources. However, there is limited research evaluating the extent to which women's use of shelters, including the provision of resources, is protective against future violence. Research does suggest that the longer women are able to remain in shelters they are more likely to reap benefits from their shelter stay including increased confidence, emotional well-being, and acquiring useful information (Lyon, Lane, & Menard, 2008). Other research suggests that use of shelters to escape violent situations could, in some cases, result in retaliation (Berk, Newton, & Berk, 1986). Therefore, the impact of shelter residence specifically on women's future safety requires further research.

Although shelter services provide women with resources to assist them in establishing a violence-free life, many women are re-abused following their shelter experience. Fleury and colleagues (2000) found that more than one-third of battered women's shelter residents were re-abused by their ex-partner over a two year period and that 51% of these assaults occurred within the 10 weeks following their exit from the shelter. Further, Sullivan and Bybee (1999) evaluated the impact of a post-shelter intervention for former battered women's shelter residents which included the formulation of individualized safety plans and advocacy for access to needed resources. Findings indicated that without intervention post-shelter stay 89% of participants reported experiencing re-abuse by an ex-partner during the two year follow-up period. This risk for re-abuse was significantly reduced in those participants who received post-shelter intervention. Thus, shelter alone did not meaningfully reduce residents' risk for re-abuse. Taken together, these results suggest a need to further evaluate the impact of battered women's shelters on women's future safety.

PTSD

As stated previously, the mental health consequence most frequently associated with IPV is PTSD (Golding, 1999). The relationship between the severity of IPV and PTSD symptoms has been well established (Jones et al., 2001; Taft, Vogt, Mechanic, & Resick, 2007). Further, PTSD symptoms have been shown to impact women's psychosocial functioning, loss of needed tangible resources, and social adjustment above and beyond the impact of the experience of IPV (Johnson, Zlotnick, & Perez, 2008). Recent research has also demonstrated a relationship between PTSD and re-abuse. Krause and colleagues (2006) found that PTSD symptoms lead to increased odds of re-abuse over a one year follow-up. Additionally, Perez and Johnson (2008) found that PTSD symptoms were related to re-abuse when controlling for social support and help-seeking behaviors.

The underlying mechanism in the relationship between PTSD and re-abuse remains unclear. In their ecological model, Messman-Moore and Long (2003) posit that PTSD is part of a microsystem which places previously victimized women at increased risk for re-abuse. Specifically, they suggest that the re-experiencing symptoms of PTSD may interfere with

victims' ability to perceive or act upon potentially dangerous situations that remind the victim of prior abuse. Further, the avoidance symptoms of PTSD, particularly emotional numbing, may make a victim more vulnerable due to decreased awareness of potential danger as a result of the victim becoming numb. Finally, the hyperarousal symptoms of PTSD may contribute to victims' re-abuse in that a state of continuous arousal may actually desensitize a victim to a potentially dangerous situation, decreasing the likelihood that she will respond to perceived danger. Messman-Moore and Long (2003) further posit that perpetrators may in turn recognize PTSD victims' inability to accurately assess risk, perceiving them as an "easy target," contributing to PTSD victims' increased risk in facing further victimization.

Consistent with the theory posited by Messman-More and Long (2003), research has recently begun to investigate the impact that specific PTSD symptom clusters may exert upon women's severity of re-abuse (Cougle, Resnick, & Kilpatrick, 2009; Krause et al., 2006). Krause, Kaltman, Goodman, and Dutton (2008) found that the emotional numbing symptoms of PTSD were most strongly related to re-abuse in a sample of women who have experienced violence in intimate relationships. However, in their prospective investigation of 2,863 women, Cougle and colleagues (2009) found that the re-experiencing symptoms of PTSD were linked to re-victimization by a non-intimate assailant but that none of the PTSD clusters were related to re-victimization by an intimate partner. Thus, further research investigating the role of specific PTSD symptom clusters on victims' risk for re-abuse is still needed.

Current Study

The present study extends upon previous research by simultaneously examining the role of length of shelter stay and PTSD in women's severity of re-abuse during the first six months following their exit from the shelter, a time when shelter residents are highly vulnerable to being re-abused (Sullivan & Gillum, 2001). This prospective, longitudinal design allows for a more definitive understanding of women's experiences in the high risk period immediately following residence in a battered women's shelter, as well as further delineation of the specific nature of the role of shelter residence and PTSD symptoms in women's future safety.

This study tests the model depicted in Figure 1. Specifically, we hypothesize that women's experience of re-abuse is related to two separate mechanisms: their length of shelter stay and severity of PTSD symptoms upon exiting the shelter. We hypothesize that their access to shelter resources, as indicated by their length of shelter stay, will have a direct, negative path to re-abuse severity as previous research suggests that the longer women are able to stay in shelters they are more likely to experience positive benefits offered through shelter programs (Lyon et al., 2008). We hypothesize that the longer women are able to stay in shelters, the greater likelihood that they will be able to maximize the benefits derived from the resources available to them during their shelter stay.

In addition to the pathway outlined above, we also hypothesize that women's re-abuse will be impacted by their IPV-related PTSD symptoms. Previous research has established the association between the experience of IPV and PTSD symptom severity (Jones et al., 2001; Messman-Moore & Long, 2003; Taft et al., 2007) as well as PTSD related to the loss of resources that often follows leaving an abusive relationship (Hobfoll, 1991). Therefore, we predict that frequency of IPV during the month prior to shelter entrance and PTSD symptoms reported at the baseline interview will co-vary. Further, research has also indicated that it is quite common for women to experience symptoms of PTSD in the immediate aftermath of IPV and that either through a process of natural recovery or through

interventions provided or facilitated by the shelter, these symptoms often decrease in the time following their experience of IPV (Anderson & Saunders, 2003). Therefore, we hypothesize that specifically the IPV-related PTSD symptoms that women are experiencing upon exiting the shelter will be related to their initial experience of IPV and, most importantly, predictive of future experiences of re-abuse. Finally, prior research on the unique impact of individual PTSD clusters on re-abuse is inconclusive. Therefore, exploratory analyses of the impact of specific PTSD symptom clusters on re-abuse are also included.

Method

Participants

One hundred and forty-seven women completed a baseline interview and 103 women completed follow-up interviews at one week, three months, and six months post-shelter, yielding a 70% retention rate and are included in the current analyses. Of the 44 women who did not complete all post-shelter assessments, 43 were unable to be contacted at one or more of the follow-up time points. One woman refused further participation with the study after completing a baseline interview. Those participants lost at follow-up were compared to those retained on baseline study and demographic variables. No significant differences were found (all p -values > .05). A summary of demographic variables can be found in Table 1.

Procedure

Participants were recruited from two battered women's shelters in a medium-sized mid-western city. Recruitment was conducted between 2003 and 2007. The two shelters from which participants were recruited were part of the same shelter system. Both battered women's shelters provided physical shelter and safety for residents, as well as case management and a supportive milieu. The shelter system provided services focusing on advocacy, safety, and access to resources in order to help women establish long-term safety and independence, free from abuse.

Women were invited to complete an interview for the current study if they were a resident of one of the two battered women's shelters and had a self-reported incident of abuse from an intimate partner as defined by their responses to the Conflict Tactics Scale-2 (CTS-2; Straus, Hamby, McCoy, & Sugarman, 1996). Study procedures were approved by the Institutional Review Board and all participants signed a written informed consent. Participants were interviewed by trained graduate students in psychology or counseling under the direct supervision of a licensed psychologist. Training included detailed instruction, practice interviews, observation of interviews, and didactic training in areas specific to working with victims of IPV in battered women's shelters. Potential participants were encouraged to contact a confidential research line if they were interested in participating in the research study. Participants were interviewed in a private room at the shelter. Follow-up interviews were conducted at safe, private locations convenient for the participants. Locations included a local hospital, private rooms at local libraries, and nearby coffee shops. Women were interviewed at their homes if they were no longer involved with their abusive partner. To ensure the safety of both participants and research staff, safety procedures were followed as outlined by Sullivan and Cain (2004).

Measures

Length of shelter stay—Length of shelter stay was collected via a demographic questionnaire administered to participants as an interview. The participant's date of entrance to the shelter was collected at their baseline interview and their date of exit from the shelter was collected at their one week follow-up interview. The time between these two dates

determined the length of shelter stay, measured in the number of days between their entrance and exit dates.

PTSD severity—The Clinician Administered PTSD scale (CAPS; Blake et al., 1995) is a semi-structured clinical interview that assesses diagnostic criteria for PTSD and severity (frequency and intensity) of PTSD symptoms for the past week on a 5-point Likert scale. IPV-related PTSD symptom severity was assessed for the week prior to the baseline interview (baseline PTSD severity) and one week after exiting the shelter (post-shelter PTSD severity). One sample question is, “Have you ever had unwanted memories of the abuse?” Participants were asked how often the intrusions occurred (once in the past week, twice in the past week, several times in the past week, or almost every day). Symptom severity was then rated on a 5-point Likert scale from 0 (*absent*) to 4 (*extreme*). PTSD severity was calculated by summing the frequency and intensity scores of the re-experiencing, avoidance, and hyperarousal criteria (higher scores indicate greater symptom severity). Additionally, re-experiencing, effortful avoidance, emotional numbing, and hyperarousal variables were also created by summing the intensity and frequency scores of the appropriate items using the model suggested by King, Leskin, King, and Weathers (1998).

The CAPS has demonstrated internal reliability (α 's between .73 – .85) and concurrent validity with other empirically validated measures of PTSD including the Mississippi Scale for Combat Related PTSD, the PTSD subscale of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), and the Combat Exposure Scale (r 's between .42 – .84; Blake et al., 1995). The measure demonstrated strong reliability within the current sample ($\alpha = .93$).

Severity of baseline IPV and re-abuse—The CTS-2 (Straus et al., 1996) measures the frequency of IPV, having respondents rate the occurrence of behaviorally defined violent acts. In the current study, the CTS-2 was used to assess the frequency of IPV in the month prior to entering the shelter (baseline violence severity) as well as re-abuse during the month prior to each of the three follow-up time points (one week, three months, and six months after leaving the shelter). Participants rated the frequency of behaviorally defined acts of violence on a 7-point Likert scale from 0 (*this never happened before*) to 6 (*more than 20 times in the past month*). Sample questions include: “My partner grabbed me,” “My partner used threats to make me have sex,” and “I went to a doctor because of a fight with my partner.”

Recent research has demonstrated that summing the number of types of abusive acts reported on the CTS-2 provides a valid measure of severity of violence (Regan, Bartholomew, Kwong, Trinke, & Henderson, 2006). In order to establish an overall severity score over the course of the study follow-up period, the different types of violence reported were summed for one week post-shelter, three months post-shelter, and six months post-shelter for abuse from the index partner and an additional partner (if applicable). The scores for each of these three time points for the index and additional partner were then summed to create a single index of re-abuse over the follow-up period. We chose to sum across the three time points due to the low frequency of re-abuse reported at each time point, providing a greater range of abusive incidents in the current study. The CTS-2 has established reliability with alphas ranging from .79 – .95 (Straus et al., 1996). Further, the CTS-2 has demonstrated discriminant validity as both the sexual coercion and injury scale have non-significant correlations with the negotiation scale, a theoretically unrelated construct (r 's < .05; Straus et al., 1996). Excellent reliability was also demonstrated within the current sample ($\alpha = .94$ at baseline).

Data Analysis

In order to test the model depicted in Figure 1 path analysis, using the maximum likelihood estimation, was employed. Our sample size of 103 provides adequate power to test the current model as it exceeds the most frequently used “rule of thumb” for path analysis of ten participants per path (Kline, 1998). In order to assess fit, the Comparative Fit Index, standardized root-mean square residual (SRMR), and the root mean square error of approximation (RMSEA) are examined.

Results

Descriptive statistics and correlations among study variables are found in Table 2. A path analysis was conducted using EQS Structural Equation Modeling Software (Bentler, 1996) to determine how well the proposed path model fit the data. Results for the hypothesized path model are shown in Figure 2. Parameter estimates have been inserted into the model diagram to show the significance of each pathway. Model fit was assessed through three indices with the suggested cut-offs: Comparative Fit Index (CFI) of .90 or larger, SRMR of .05 or less, and RMSEA values of .08 or less (Kline, 1998). The model chi-square was also reported to further assess model fit. Results revealed that the data fit the path model well, as indicated by the fit indices: $\chi^2(8) = 10.30$, $p = .24$; CFI = .97; SRMR = .07; and RMSEA = .05 (90% CI = .00 - .13).

Results of the analysis showed that all of the hypothesized pathways were significant (see Figure 2). Specifically, the first significant pathway showed that length of shelter stay was negatively related to re-abuse. The model also showed that PTSD severity (baseline) was positively related to later PTSD severity (post-shelter) and covaried with IPV frequency (at baseline). Furthermore, IPV frequency (baseline) was positively related to PTSD severity (post-shelter), which in turn, was positively related to re-abuse severity. Overall, the model provided a strong fit between the data and the hypothesized path model.

Exploratory Analyses

In order to investigate the relationship between specific PTSD symptom clusters at post-shelter as defined by King and colleagues (1998) and re-abuse over the study follow-up period, correlational analyses were conducted. The correlation between re-abuse severity and emotional numbing was significant ($r(101) = .283$, $p < .01$). Correlations between re-abuse severity, re-experiencing, effortful avoidance, and hyperarousal symptoms were non-significant ($r(101) = .133$, $p > .05$; $r(101) = .141$, $p > .05$; $r(101) = -.002$, $p > .05$, respectively).

Discussion

The current study tested a path model investigating factors related to women's re-abuse severity for the six months following their exit from a battered women's shelter. This study builds upon existing literature by simultaneously examining the relationship between PTSD symptoms and length of shelter stay on re-abuse severity during a critical period when women are vulnerable to being re-abused after leaving the safe and supportive environment of shelter. Our model (see Figures 1 and 2) received strong statistical support in the current investigation. Results indicate that the longer women are able to stay in a shelter, the lower the degree of re-abuse experienced over the six month follow-up period. When taking into account the frequency of IPV experienced in the month prior to shelter admission and PTSD symptoms upon shelter admission, PTSD symptom severity upon shelter exit is directly related to degree of re-abuse across the six month follow-up period, with greater severity of symptoms predictive of higher re-abuse severity. Finally, preliminary correlational analyses

suggest that the emotional numbing symptoms of PTSD may play a key role in women's degree of revictimization.

The relationship between length of shelter stay and re-abuse severity over the first six months post-shelter provides preliminary support that staying in a shelter serves as an important intervention in aiding victims of IPV to establish their independence and physical safety upon exiting a shelter. In addition to providing women with a safe haven, previous research suggests that shelters may facilitate women's help-seeking behaviors, offering not only encouragement, but also more tangible referrals, resources, and assistance in making their efforts more effective and productive (Berk et al., 1986). Consistent with COR theory (Hobfoll, 1991), when women are able to engage in longer shelter stays they may be more able to avail themselves to the agency's resources including case management and access to education and job training programs, potentially explaining the current relationship between length of shelter stay and lower degree of re-abuse (Haj-Yahia & Cohen, 2009; Macy et al., 2009; Sullivan & Gillum, 2001). The longer women are able to take advantage of not only the physical safety offered by shelters but also have their help seeking efforts facilitated by shelter staff and increase their access to important material, personal, and social resources, the less likely they are to experience re-abuse (Berk et al., 1986). A longer stay in a shelter may enable women to make better use of these resources, leading to greater independence upon exiting the shelter. Further research is needed to specifically disentangle the aspects of a shelter that contribute the most to reduced severity of re-abuse.

In addition to the protective nature of staying in a shelter, women's PTSD symptoms are also predictive of women's experience of re-abuse. Previous research has supported the mechanistic role of PTSD in the experience of re-victimization (Cougle et al., 2009; Krause et al., 2008; Messman-Moore & Long, 2003; Perez & Johnson, 2008). The present study lends further support to the notion that PTSD symptoms can place battered women at increased risk for re-abuse. The current investigation is also suggestive that emotional numbing symptoms in particular may be related to degree of re-abuse. The emotional numbing symptoms of PTSD may place women at greater risk for re-abuse by interfering with their ability to attend to danger cues, experience appropriate feelings of fear and danger, and accurately integrate their sensory perceptions with their emotional and cognitive experience. These deficits may make previously abused women with PTSD appear vulnerable to perpetrators (Messman-Moore & Long, 2003).

The current findings have important implications for clinical interventions and practice. Again, it is crucial to acknowledge that very few aspects of IPV are under the direct control of victims of IPV and their advocates. That said, it is important for victims and advocates to focus their collective energies upon the aspects of IPV that are within their control. Although the length of shelter stay and PTSD symptoms are not always under the victim's and advocate's control, intervening in order to reduce PTSD and to extend the length of shelter stays may be important in reducing the risk of being re-abused for residents of battered women's shelters after leaving the shelter. Current results suggest that length of shelter stay and severity of PTSD symptoms following shelter stay have distinct and direct impacts on the degree of re-abuse. Therefore, since both pathways are important, neither a focus on shelter resources nor treating PTSD in isolation is likely to be as effective as a combined approach on lessening women's experience of future violence. Although many shelters primarily offer shelter services on a limited, short-term basis, the current results suggest that if possible, allowing for greater flexibility around the length of shelter stay or continuing to offer resources after women exit a shelter may be helpful. Currently, standard shelter services do not routinely incorporate treatment for PTSD (Sullivan & Gillum, 2001). The current results suggest a strong need to address women's PTSD symptoms within the context of the shelter stay.

Findings also highlight the necessity of psychotherapeutic treatment specific to the unique needs of IPV victims with PTSD and that this treatment would ideally be integrated within the shelter environment. Recent research suggests that integrating psychotherapeutic services within the shelter context is beneficial for shelter residents (Johnson & Zlotnick, 2006; Johnson & Zlotnick, 2009). Further, our finding that the emotional numbing symptoms of PTSD may play a mechanistic role in IPV victims being re-abused after leaving a shelter suggest that treatment for IPV victims in shelters should directly address the role that emotional numbing symptoms may play in women's risk for being re-abused. Resources to integrate a therapy specific to the needs of this population into battered women's shelters have the potential to make a significant difference in not only IPV victims' mental health, but also their long-term safety.

The current study provides further information on the experience of IPV victims following a stay in a battered women's shelter. However, it is important to note several limitations. Although the current study was able to capture the six months immediately following shelter exit, women will likely continue to be at risk for re-abuse long after ceasing participation with the study. Given limited resources, six months was the longest follow-up period feasible in the present study. Future studies can contribute to the research base by employing longer follow-up periods. Also, all accounts of re-abuse were gathered using retrospective recall and therefore are subject to errors inherent in this method. Further, results may not generalize to IPV victims who do not seek shelter. The current study employed length of shelter stay as a proxy for women's use of resources during their shelter stay. Future research should gather more detailed information on the nature of the resources provided to and accessed by women during their shelter stay and how these types of resources allow women to establish future safety.

With the noted limitations, the current study also has several strengths. Data was collected upon shelter entry as well as for the following six months, therefore allowing for causal inferences to be made. Re-abuse data was collected over three time points, one week post-shelter, three months post-shelter, and six months post-shelter from the index partner that led to their shelter admission (and for an additional partner if applicable), which should decrease the errors inherent to retrospective reporting. The current investigation also made use of standardized assessment instruments, including the CAPS and CTS-2.

The findings of the study highlight the importance of conducting program evaluations to determine the specific types of shelter resources and other aspects of staying in a shelter that foster future safety. Additionally, further research is also needed to identify the aspects of staying in a shelter that are most effective for women's future safety. Research can work toward identifying which aspects of a shelter stay enable women to avoid returning to an unsafe situation and/or focus their energies on controllable aspects of safety planning. Shelter resources, combined with the effective treatment of PTSD symptoms in this population, may reduce IPV victims' risk of re-abuse.

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Figure 1. Hypothesized Model

Note. PTSD = Posttraumatic Stress Disorder Scale; IPV = Intimate Partner Violence

Figure 2. Path Model with Estimates and Fit Indices

Note. PTSD = Posttraumatic Stress Disorder Scale; IPV = Intimate Partner Violence Fit

Statistics: $\chi^2(8) = 6.38$, $p = .27$, CFI = .97, RMSEA = .05 * $p < .05$

Table 1

Demographic Characteristics of Participants (N = 103)

	M	SD	n	%
Age	35.5	8.7		
# of children	2.5	1.7		
Race/Ethnicity				
Black			54	52.4
White			37	35.9
Hispanic			9	8.7
Other			12	11.7
Sexual Orientation				
Heterosexual			93	90.3
Lesbian			1	1.0
Bisexual			9	8.7
Highest Education Obtained				
Less than high school			22	21.4
High school/GED			81	78.6
On Public Assistance			68	66.0
Employed			26	25.2
Co-habitated with partner			81	78.6
PTSD at baseline interview			68	66.0
Re-abuse over follow-up period			80	78.0

Table 2
Descriptive Statistics and Pearson's Correlations among Independent and Dependent Variables (N = 103)

	M	SD	1	2	3	4
Length of Shelter Stay	58.76	56.06	--			
CAPS (baseline)	54.12	27.34	.21**	--		
IPV Frequency (baseline)	19.79	7.78	.17**	.30***	--	
CAPS (post-shelter)	40.06	27.49	.13**	.48***	.31***	--
Re-abuse	11.87	15.50	-.26**	.05	.07	.18

Note. CAPS = Clinician Administered Posttraumatic Stress Disorder Scale, IPV Frequency = Intimate Partner Violence Frequency.

* *p* .05,
** *p* .01,
*** *p* .001